

Fluidea

...we know how!



PROPORTIONAL ELECTRIC FOOT PEDALS PEP

20.03



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Description

The Hall effect proportional foot pedal series PEP are suitable to operate in the heaviest environmental conditions.

The sensors and the electronic components are IP68S protected and are positioned in the lower part of the body which is separated from the upper part by a waterproof plastic diaphragm.

The foot pedal is made of a robust steel plate with a special anti-corrosion treatment and the pivot pin has an anti-seizure protection to prevent the inlet of solid particles from the external environment.

The fully tested Hall effect technology, combined with the modular electronic system, allows the configuration of the output metering curves in the analogue, PWM, CAN, USB standard options or customized on request.

This technical catalogue refers only to the analogue output signal configurationn. For other configuration, please contact our sales office.

Hall effect sensors are protected against electromagnetic interferences and radiofrequencies (EMI and RFI) up to 100 V/M.

The pre-stroke and extra-stroke blind angles can be programmed with very tight tolerances to allow the hysteresis reduction and ensure the perfect repeatability in any operating condition.

The foot pedal series PEP for their design and build specifications and for the operating performances, represent a one of a kind product in the market.

Peculiarities:

- Robust steel plate foot pedal with anti-corrosion treatmen
- Sealed pivot pi
- Contactless tested Hall effect technology sensor
- Electrical and mechanical life up to 9 millions cycle
- Hall effect sensors and electronic board sealed and with a separation diaphragm from the upper part.
- IP68S protectio
- Adjustable pre-stroke, extra-stroke blind angle, start and end regulatio
- Automated programming of the sensors to ensure minimum tolerance of outpu metering curves.
- Output analogue, PWM, CANbus and USB signal
- Electromagnetic withstand EMI/RFI up to 100V/
- Reverse polarity protectio
- RoHS & WEEE complianc



Technical features

ELECTRICAL

Electrical life

Supply current for each sensor (mA)

Output resistance (@ $I_o \leq -2$ mA) (Ω)

Analogue supply voltage (option 1) (VDC)

Analogue supply voltage (option 2) (VDC)

Out of centre output analogue signal tolerance (VDC)

End stroke output analogue signal tolerance (VDC)

Out of centre output analogue signal voltage(VDC)

Out of centre operation angle (°)

MIN	TYPICAL	MAX
9.000.000 cycles		
N/A	N/A	10,00
N/A	100,0	N/A
4,50	5,00	5,50
8,00	12,00	18,00
-0,15	N/A	+0,15
-0,15	N/A	+0,15
5,00	N/A	30,00
1	2	3

MECHANICAL

Mechanical life

Nominal deflection angle (bidirectional mode) (°)

Nominal deflection angle (unidirectional mode) (°)

Pre-stroke angle (°)

Extra-stroke angle (°)

Operating force (N) @ -40÷85°C on I/A @ α 6,5°

MIN	TYPICAL	MAX
9.000.000 cycles		
13 backward	26	13 forward
13	15	16
0,5	1,0	1,5
0,5	1,0	1,5
15,6	20,0	24,4

ENVIRONMENTAL

Ambient temperature (°C)

Storage temperature (°C)

Humidity resistance test

Vibration resistance test

Protection class

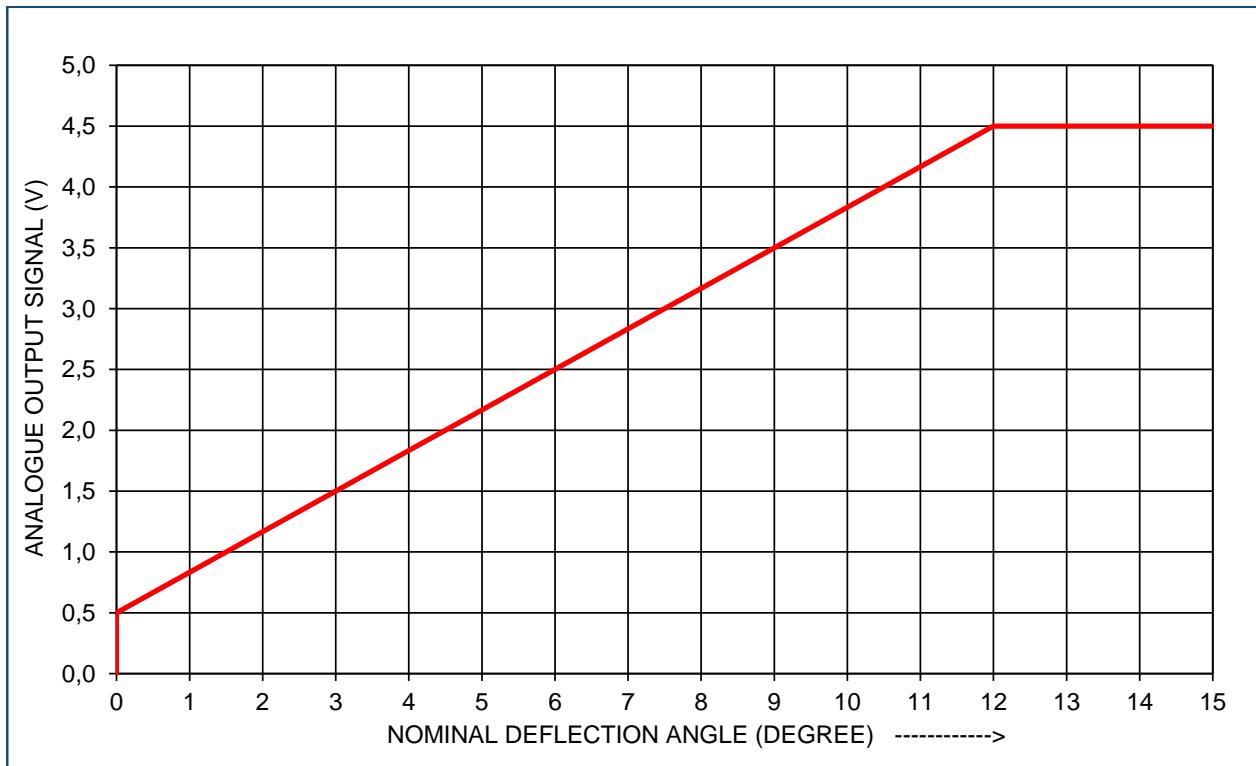
RFI withstand (options 3 and 5 excluded)

EMI withstand in compliance with

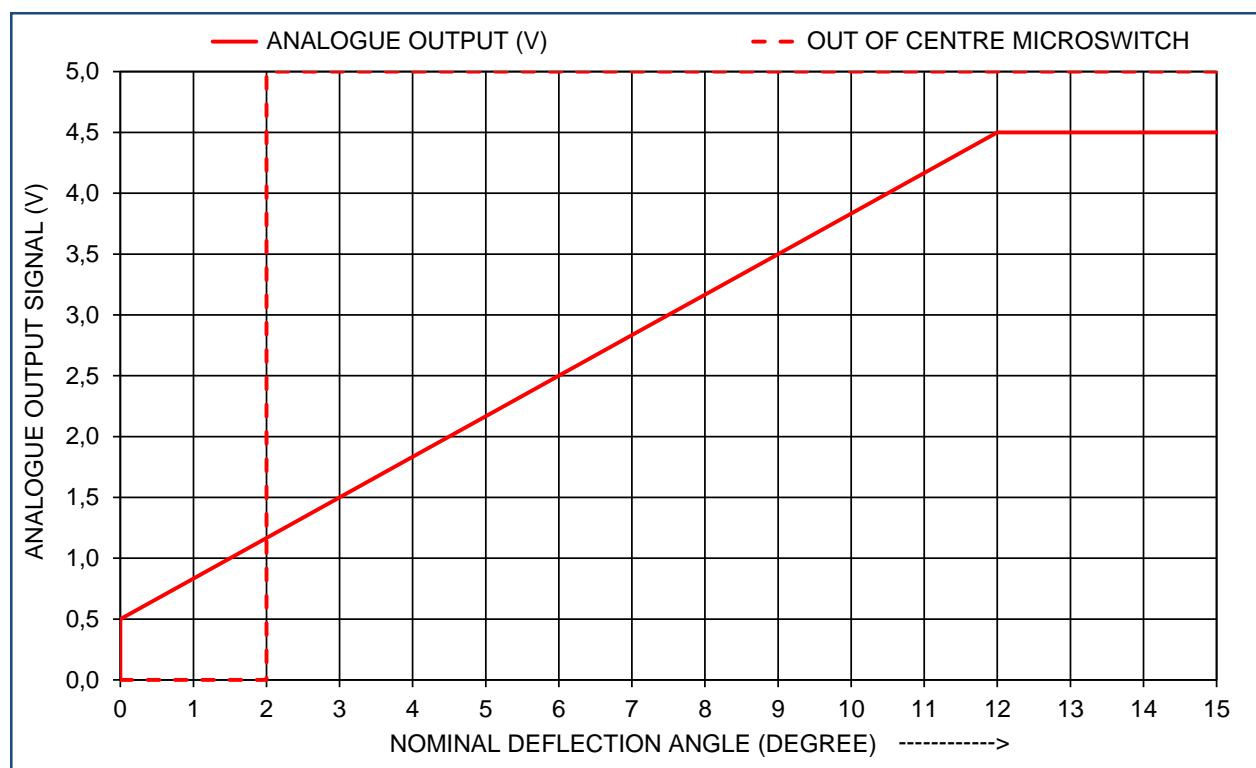
MIN	TYPICAL	MAX
-40	20	85
-65	20	105
96% RH @ 70 °C for 96 hours		
10g, 10 Hz - 2kHz sinusoidal		
IP68		
100V/M, from 14 kHz to 1 GHz		
MIL-STD-461D/SAE J1113-22		

Output metering curves

Metering curve A - For unidirectional single pedal (0- max.)

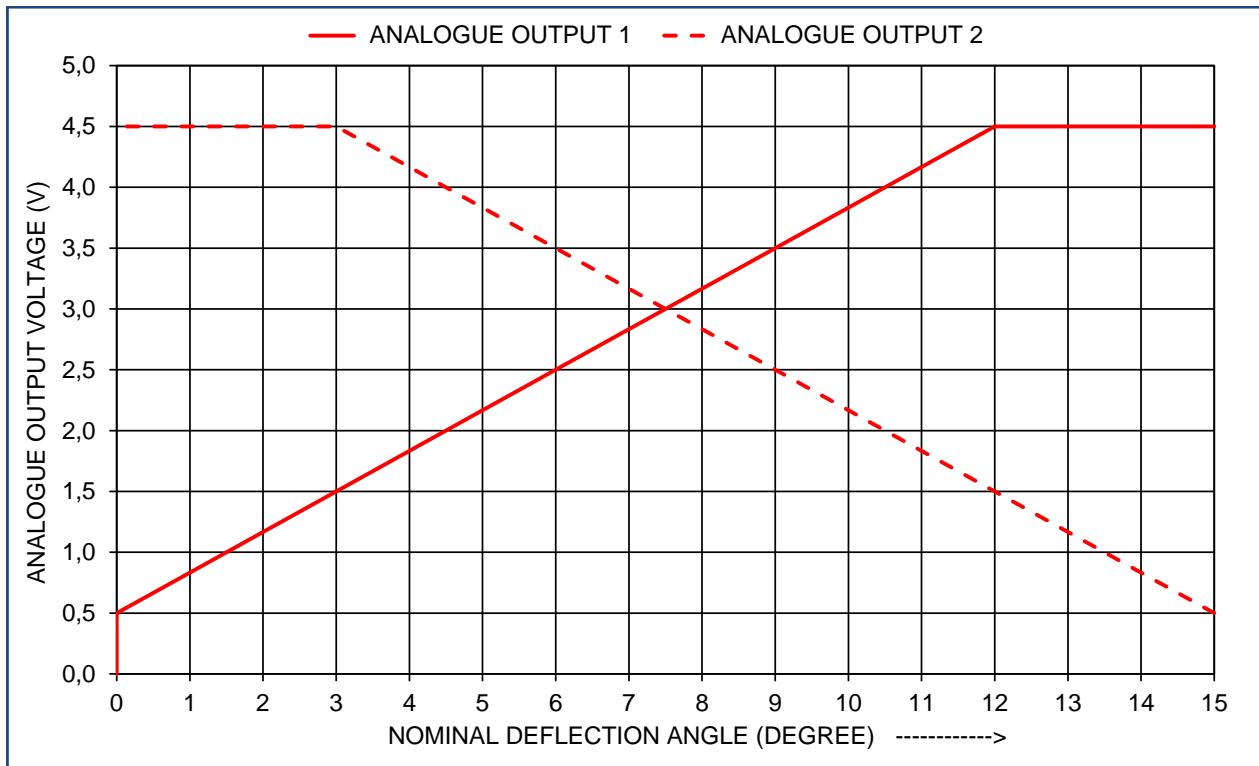


Metering curve B - For unidirectional single pedal (0- max.) and out of centre micro-switch

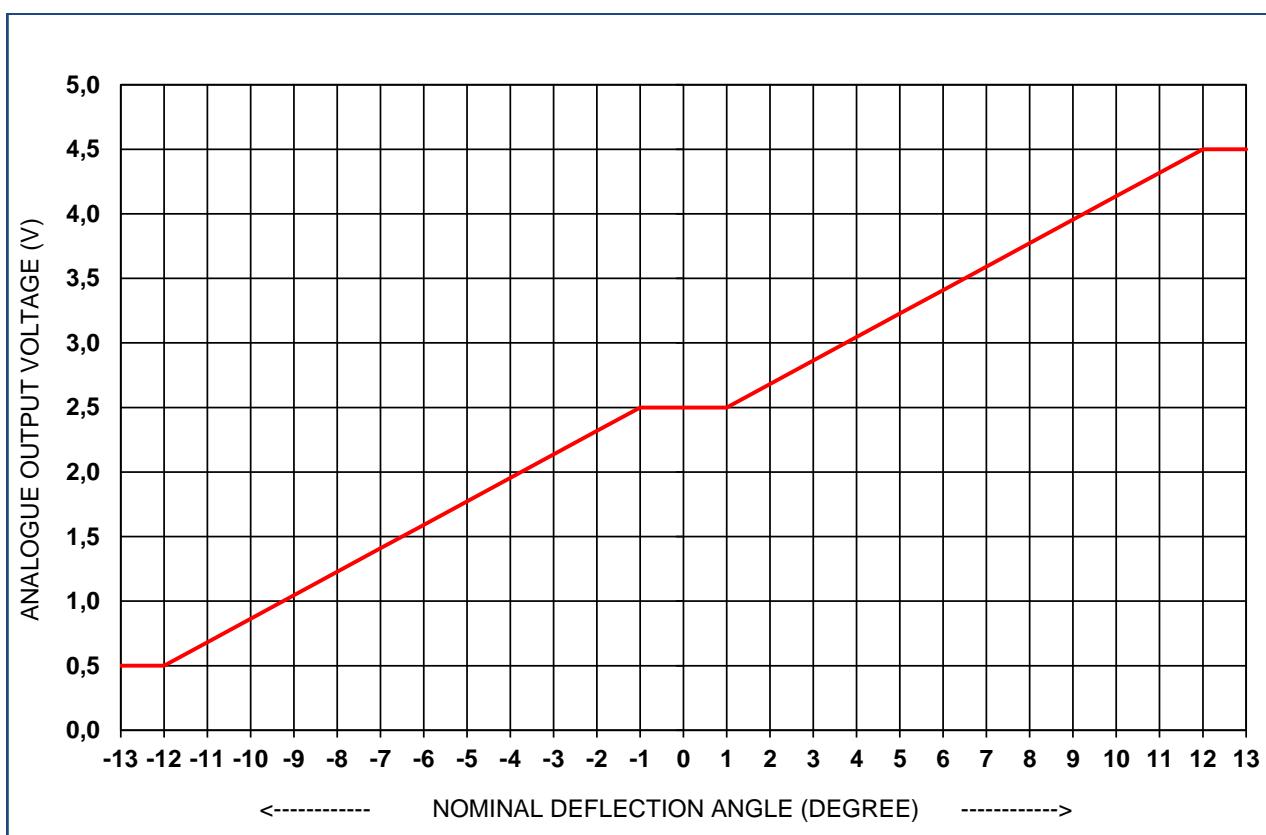


Output metering curves

Metering curve C - For unidirectional single pedal and 2 output signals (zero-max.)



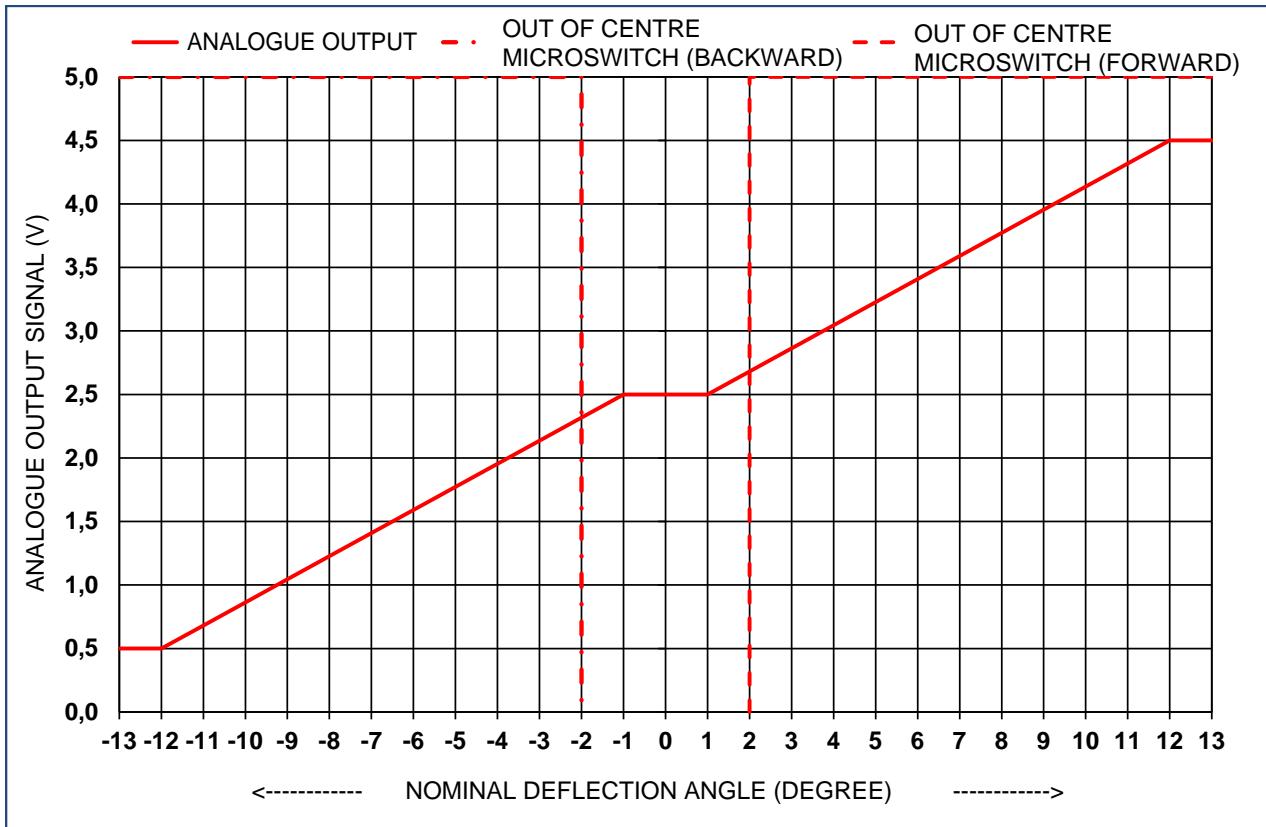
Metering curve D - For rocker pedal (BWD-0-FWD)



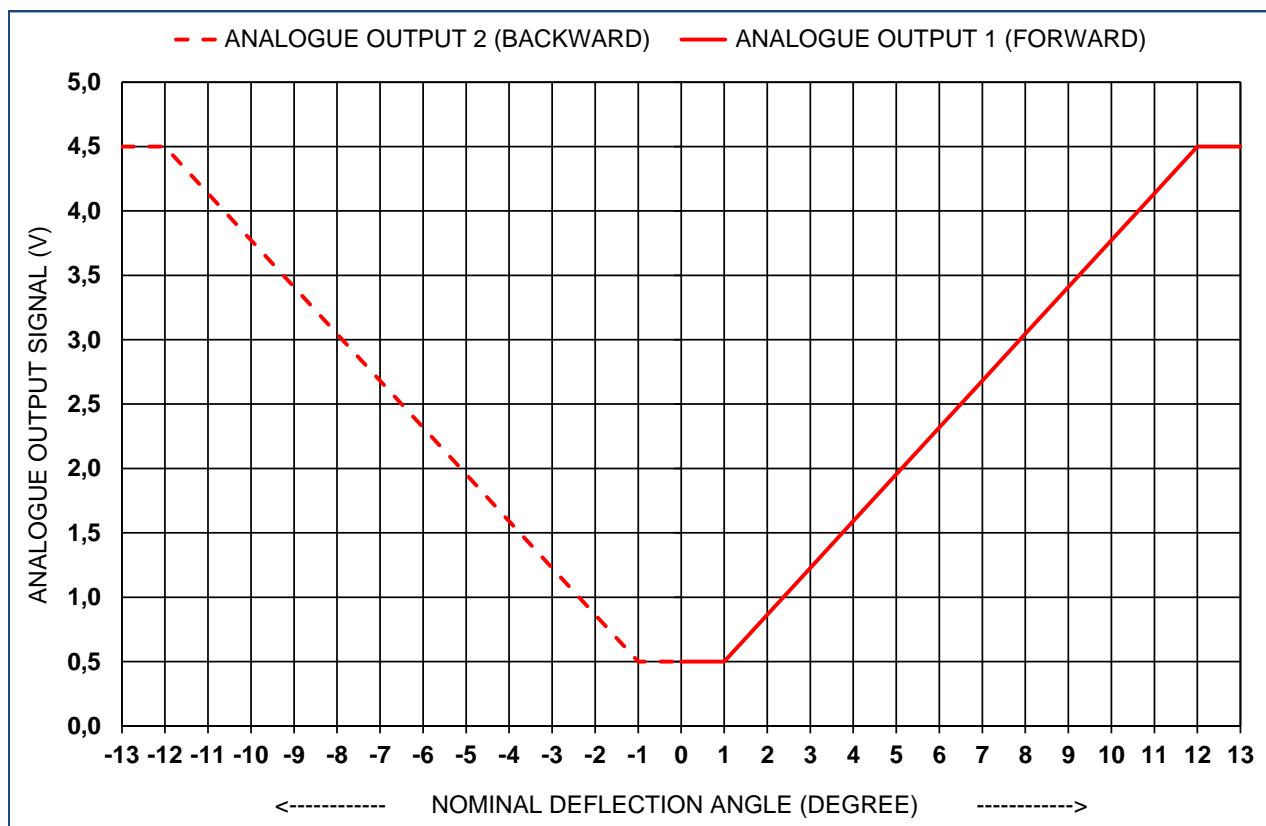
Output metering curves:

Output metering curve

Metering curve E - For rocker pedal (BWD-0-FWD) and 2 out of centre microswitches

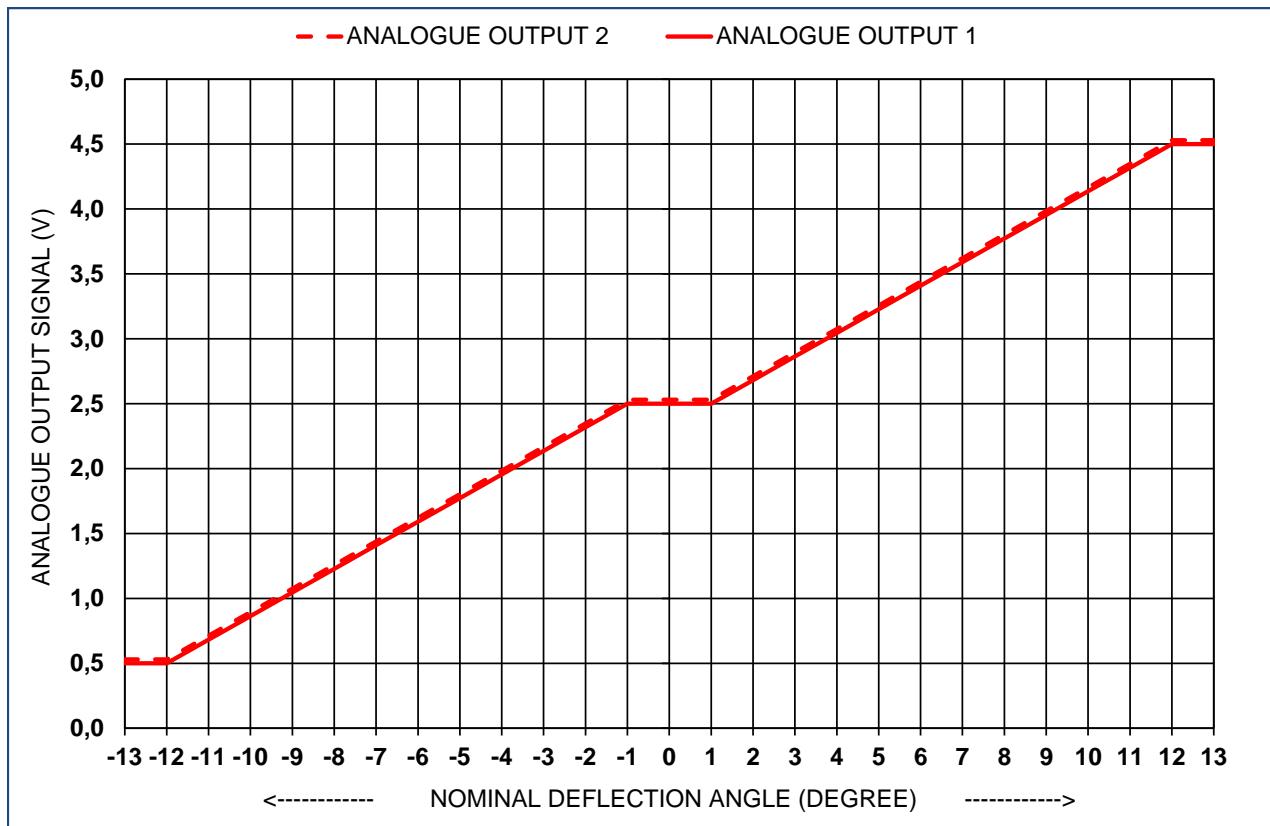


Metering curve F - For rocker pedal (BWD-0-FWD) with zero in neutral position



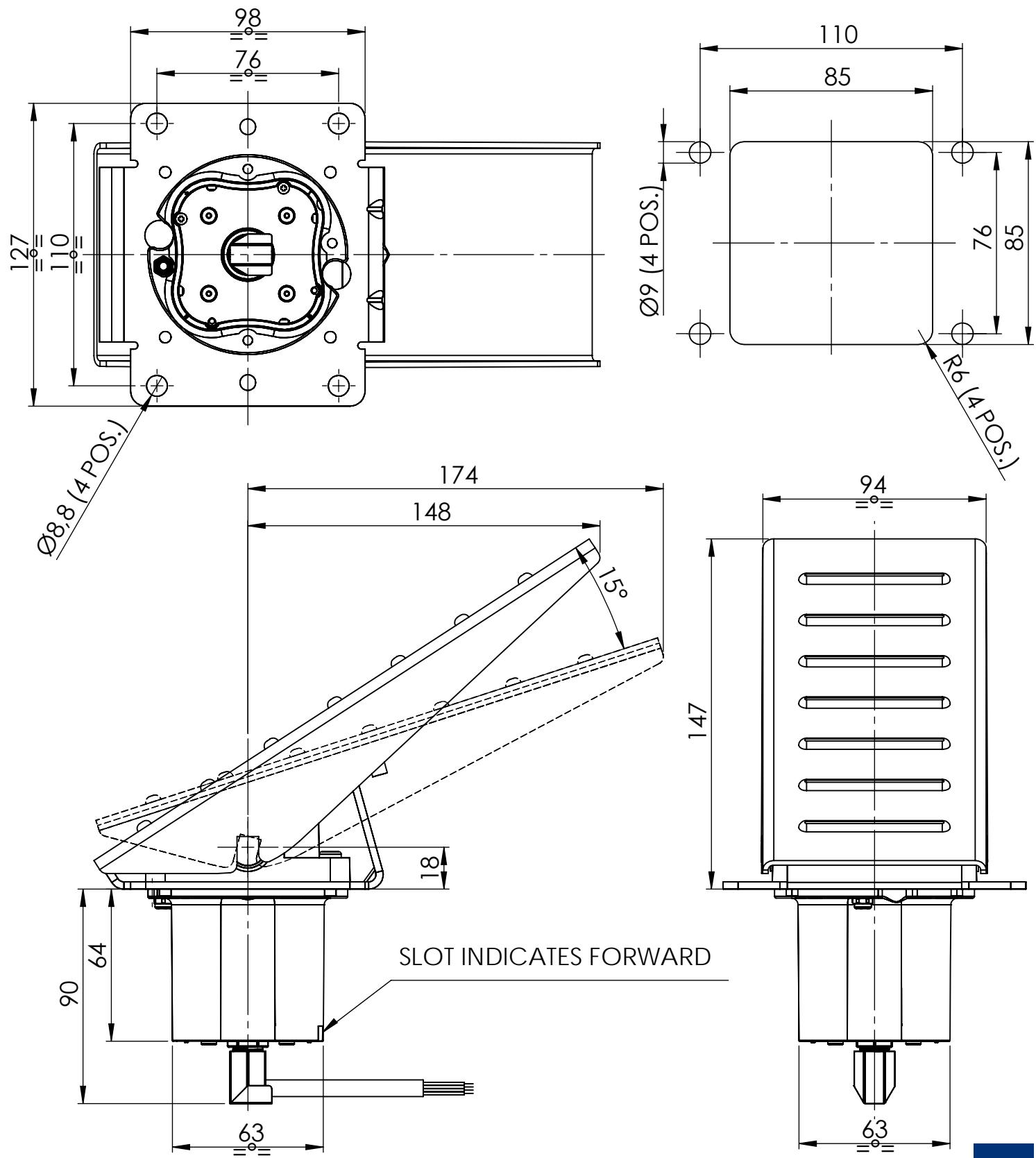
Output metering curve:

Metering curve G - For rocker pedal (BWD-0-FWD) and 2 output signals



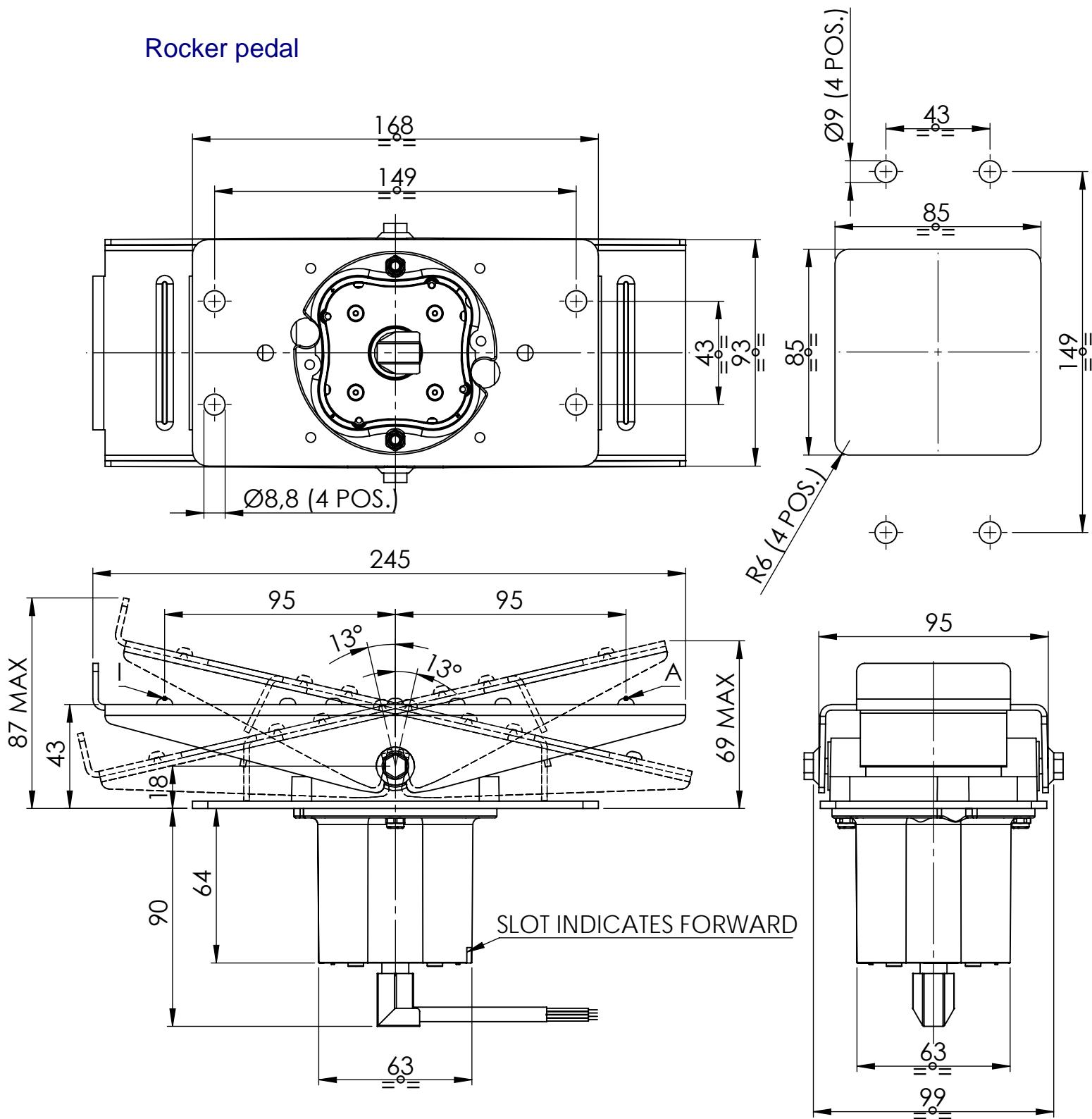
Overall dimension:

Single pedal

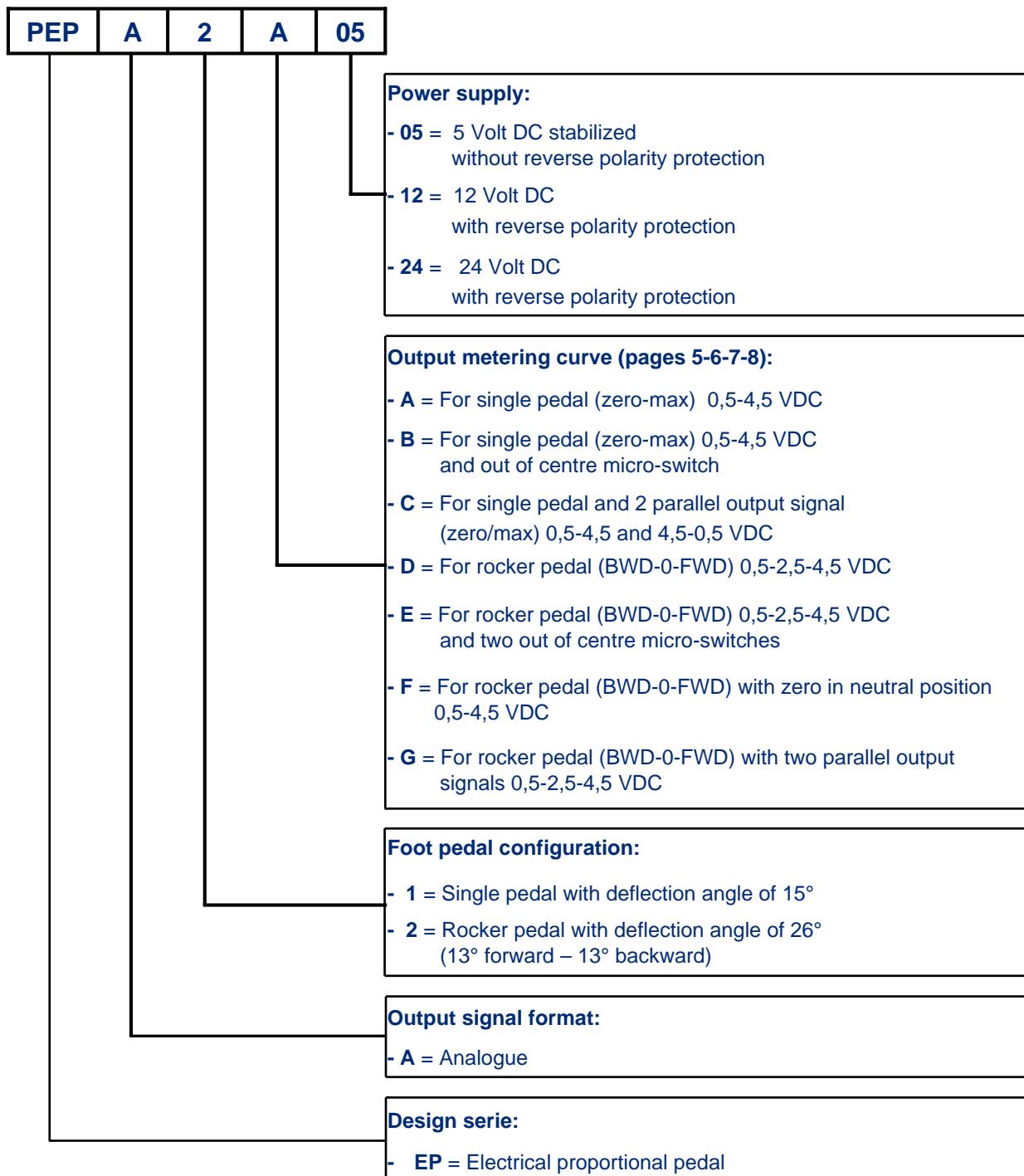


Overall dimension:

Rocker pedal



Ordering key:



THE COMPREHENSIVE RANGE OF MANUFACTURED AND MARKETED COMPONENTS INCLUDES:

- Hydraulic gear and axial piston pumps & motors
- Directional control valves & selector valves
- Proportional EH pressure reducing valves & manifold blocks
- Hydraulic, pneumatic and electric on-off & proportional joysticks
- Control electronics
- Radio controls, push buttons stations, dashboards and armrests
- Multifunction ergonomic, cylindrical & palm grips
- Hydraulic filters & contamination control system
- Heat exchangers and cooling system
- Fluid monitoring & diagnostic instrument
- Bell housings, driving flanges & elastic coupling



Fluidea S.r.l.
Via Magazzino, 2586 - I-41056 Savignano S/P (MO)
Tel. +39 059 8635156 - Fax: +39 059 8635157
info@fluidea.net - www.fluidea.net

